IN THE CLAIMS:

The following is a listing of the pending claims:

1. (previously presented) A bandgap reference, comprising:

a first current source configured to provide a current that is proportional to the sum of a first voltage having a positive-to-absolute-temperature (PTAT) temperature dependency and a second voltage having a complementary-to-absolute-temperature (CTAT) dependency; and

a

a first variable resistor including a first resistor and a plurality of second resistors, wherein each of the second resistors is adapted to be selectively combined in parallel with the first resistor such that a conductance of the first variable resistor equals a sum of a conductance for the first resistor and a combined conductance for the selected second resistors, and wherein the second voltage is inversely proportional to the resistance of the first variable resistor.

2. (original) The bandgap reference of claim 1, wherein each of the second resistors couples to a corresponding switch such that if the switch corresponding to a given second resistor is ON, the given second resistor is coupled in parallel with the first resistor.

3. (original) The bandgap reference of claim 2, further comprising:

a second current source;

a third resistor; and

a first diode coupled in parallel with the third resistor, wherein the second current source drives the parallel-coupled third resistor and the first diode to generate the first voltage, and wherein the second voltage is proportional to the ratio of the resistance of the third

resistor to the resistance of the first variable resistor.

4. (original) The bandgap reference of claim 3, wherein the first variable resistor is adapted such that the voltage ratio is discretely variable in substantially equal increments from a minimum voltage ratio value to a maximum voltage ratio value.

5. (previously presented) The bandgap reference of claim 4, further comprising a second variable resistor configured to be driven by the first current source to produce a bandgap reference output voltage that is proportional to a ratio of the resistance of the second variable resistor to the resistance of the third resistor.

6. (original) The bandgap reference of claim 5, wherein the second variable resistor includes:

a fourth resistor in series with a fifth resistor;

a plurality of sixth resistors, wherein each of the sixth resistors is adapted to be selectively combined in parallel with the fourth resistor; and

a plurality of seventh resistors, wherein each of the seventh resistors is adapted to be selectively combined in parallel with the fifth resistor.

7. (original) The bandgap reference of claim 6, wherein the second variable resistor is adapted such that the ratio of the resistance of the second variable resistor to the resistance of the third resistor is discretely variable in substantially equal increments from a minimum voltage ratio value to a maximum voltage ratio value.

8. (original) The bandgap reference of claim 7, wherein each of the sixth resistors couples to a corresponding switch such that if the switch corresponding to a given sixth resistor is ON, the given sixth resistor is coupled in parallel with the fourth resistor.

9. (original) The bandgap reference of claim 7, wherein each of the seventh resistors couples to a corresponding switch such that if the switch corresponding to a given seventh resistor is ON, the given seventh resistor is coupled in parallel with the fifth resistor.

10. (currently amended) A method ~~of configuring a bandgap reference, wherein the bandgap reference comprises a first variable resistor including a first resistor and a plurality of second resistors, wherein each of the second resistors is adapted to be selectively coupled in parallel with the first resistor such that resistance of the first variable resistor is variable in discrete increments depending upon whether a given second resistor is selected to be coupled in parallel with the first resistor, and wherein a contribution from a voltage component having a positive-to-absolute-temperature (PTAT) temperature dependency to an output voltage of the bandgap reference is inversely proportional to the resistance of the first variable resistor, the method~~ comprising:

providing a bandgap reference, wherein the bandgap reference comprises a first variable resistor including a first resistor and a plurality of second resistors, wherein each of the second resistors is adapted to be selectively coupled in parallel with the first resistor such that resistance of the first variable resistor is variable in discrete increments depending upon whether a given second resistor is selected to be coupled in parallel with the first resistor, and

wherein a contribution from a voltage component having a positive-to-absolute-temperature (PTAT) temperature dependency to an output voltage of the bandgap reference is inversely proportional to the resistance of the first variable resistor; and

assigning resistances to the first and second resistors such that the discrete increments for the resistance of the first variable resistor are substantially equal.

11. (original) The method of claim 10, wherein the resistances of the second resistors are assigned according to a binary progression.

12. (original) The method of claim 11, further comprising:

varying the resistance of the first variable resistor according to the discrete increments such that the output voltage is thermally stable.

13. (previously presented) A bandgap reference, comprising:

a first current source configured to provide a current that is proportional to the sum of a first voltage having a positive-to-absolute-temperature (PTAT) temperature dependency and a second voltage having a complementary-to-absolute-temperature (CTAT) dependency;

a differential amplifier responsive to the difference to between the first and second voltages, the differential amplifier controlling the current provided by the first current source; and

a first variable resistor including a first resistor and a plurality of second resistors, wherein each of the second resistors is adapted to be selectively combined in parallel with the first resistor such that a conductance of the first variable resistor equals a sum of a

conductance for the first resistor and a combined conductance for the selected second resistors, and wherein the second voltage is inversely proportional to resistance of the variable resistor.

14. (original) The bandgap reference of claim 13, wherein each of the second resistors couples to a corresponding switch such that if the switch corresponding to a given second resistor is ON, the given second resistor is coupled in parallel with the first resistor.

15. (previously presented) The bandgap reference of claim 14, further comprising:

a second current source having a current also controlled by the differential amplifier;

a third resistor;

and a first diode coupled in parallel with the third resistor, wherein the second current source drives the parallel-coupled third resistor and the first diode to generate the first voltage, and wherein the second voltage is proportional to a ratio of the resistance of the third resistor to the resistance of the first variable resistor.

16. (previously presented) The bandgap reference of claim 15, wherein the first variable resistor is adapted such that the ratio is discretely variable in substantially equal increments from a minimum voltage ratio value to a maximum voltage ratio value.

17. (previously presented) The bandgap reference of claim 16, further comprising a second variable resistor configured to be driven by the first current source to produce a bandgap reference output voltage that is proportional to a ratio of the resistance of the second variable

resistor to the resistance of the third resistor.